

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the present application.

Listing of Claims:

1. (Currently Amended) Spherical molding sand produced by the process of claim 6, wherein the spherical molding sand comprises as major components Al₂O₃ and SiO₂, and has an Al₂O₃/SiO₂ weight ratio of from 1 to 15 and an average particle size of 0.05 to 1.5 mm.

2. (Original) The spherical molding sand according to claim 1, wherein the spherical molding sand has an average particle size of 0.05 to 0.5 mm and a spherical degree of at least 0.95.

3. (Cancelled).

4. (Original) The spherical molding sand according to claim 1, wherein the spherical molding sand has a spherical degree of at least 0.98.

5. (Previously Presented) Molding sand comprising 50% by volume or more of the spherical molding sand as defined in claim 4.

6. (Currently Amended) A process for producing a spherical molding sand, comprising: fusing in flame powdery particles comprising as major components Al₂O₃ and SiO₂, and having an Al₂O₃/SiO₂ weight ratio of from 0.9 to 17 and an average particle size of 0.05 to 2 mm, and forming spherical particles with a water absorption of at most 0.8% by weight from said powdery particles.

7. (Previously Presented) A casting mold comprising the spherical molding sand as defined in claim 1, alone or in combination with known molding silica sand or a fire-resistant aggregate, mixed with an inorganic binder selected from the group consisting of clay, water and glass silica sol; and an organic binder selected from the group consisting of furan resin, a phenol resin and a furan-phenol resin.

8. (Previously Presented) A casting mold comprising the spherical molding sand as defined in claim 5, alone or in combination with known molding silica sand or a fire-resistant aggregate, mixed with an inorganic binder selected from the group consisting of clay, water and glass silica sol; and an organic binder selected from the group consisting of furan resin, a phenol resin and a furan-phenol resin.

9 - 12. (Cancelled).

13. (Currently Amended) A spherical molding sand produced by the process of claim 6, wherein the spherical molding sand comprises as major components Al_2O_3 and SiO_2 , and has an $\text{Al}_2\text{O}_3/\text{SiO}_2$ weight ratio of from 1 to 15, an average particle size of 0.05 to 1.5 mm and a spherical degree of at least 0.95.

14. (Cancelled).

15. (Original) The spherical molding sand according to claim 13, wherein the spherical molding sand has a spherical degree of at least 0.98.

16. (Original) A molding sand comprising 50% by volume of the spherical molding sand as defined in claim 15.

17. (Cancelled).

18. (Previously Presented) A casting mold comprising the spherical molding sand as defined in claim 13, alone or in combination with known molding silica sand or a fire-resistant aggregate, mixed with an inorganic binder selected from the group consisting of clay, water and glass silica sol; and an organic binder selected from the group consisting of furan resin, a phenol resin and a furan-phenol resin.

19. (Previously Presented) A casting mold comprising the spherical molding sand as defined in claim 16, alone or in combination with known molding silica sand or a fire-resistant aggregate, mixed with an inorganic binder selected from the group consisting of clay, water and glass silica sol; and an organic binder selected from the group consisting of furan resin, a phenol resin and a furan-phenol resin.

20–23. (Cancelled).